Optimization of fibrinolytic enzyme production from *Neurospora sitophila* FNCC 6101 with soybean meal medium powder

ABSTRACT

The optimization study of fibrinolytic enzyme production from *Neurospora sitophila* FNCC 6101 with soybean meal medium powder was done by using fibrin plate method.*Neurospora sitophila* FNCC 6101 grown on soybean meal medium powder with solid state fermentation.The fibrinolytic enzymes activity is declared by fibrinolytic index. Fibrinolytics index is the comparisson between clear zones and colony of fungusdiameters.Of the various pH, media, and incubation temperatures tested were pH 4.0; 6.0 and 7.0 with potato dextrose agar (PDA) medium, potato dextrose agar (PDA) + soybean meal powder (BK) medium, and Agar + soybean meal powder (BK) medium and incubation temperature 32^{o}C, 37^{o}C and 40^{o}C, *Neurospora sitophila* FNCC 6101 could produce fibrinolytic enzymes. Optimum production of fibrinolytic enzymes was obtained on potato dextrose agar (PDA) + soybean meal powder (BK) medium with pH 6 and incubated at 32 ° C with fibrinolytic index of 5.95 ± 0.19 ($p < 0.05$). The optimum concentration of soybean meal powder (BK) was carried out at concentrations of 1%, 1.5%, and 2% and fibrinolytic index was found to be respectively 5.95 ± 0.19; 6.69 ± 0.21 and 4.60 ± 0.25. The optimal production was found on potato dextrose agar medium (PDA) + soybean meal powder (BK) 1.5% with pH 6 and incubation temperature 32^{o}C.

Keyword :*Neurospora sitophila* FNCC 6101, fibrinolytic enzymes, soybean meal powder